
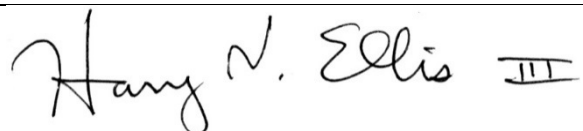



DATA VALIDATION CHECKLIST – STAGE 4 EPA REGION 5 START CONTRACT

Site Name	West Vermont Drinking Water Contamination Site	TDD No.	0001-1505-202
Document Tracking No.	0456	QC Reviewer (signature and date)	 18 November 2015
Data Reviewer (signature and date)	 18 November 2015	Laboratory	Pace Analytical, Inc., Minneapolis, Minn.
Laboratory Report No.	10319538		
Analyses	Chlorinated ethene compounds by Method TO-15		
Samples and Matrix	21 Air samples		
Field Duplicate Pairs			
Field Blanks	None		
	<div style="border: 1px solid red; padding: 2px;">10319538002/10319538003;10319538017/10319538018;10319538014/10319538015</div>		

INTRODUCTION

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) and the EPA *CLP NFG for Inorganic Superfund Data Review* (August 2014).

OVERALL EVALUATION

The analyses went well with no results rejected and few qualified. All results may be used, as qualified, for any purpose.

Data completeness:

Within Criteria	Exceedance/Notes
Y	



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Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
Y	

Initial Calibration:

Within Criteria	Exceedance/Notes
Y	

Continuing Calibration:

Within Criteria	Exceedance/Notes
Y	

Calibration Verification:

Within Criteria	Exceedance/Notes
Y	



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Method blanks:

Within Criteria	Exceedance/Notes
Y	

Field blanks:

Within Criteria	Exceedance/Notes
NA	The data package included certification reports for all canisters. No analytes were detected.

Interference Check Samples (ICS) (ICP metals only):

Within Criteria	Exceedance/Notes
NA	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	

MS/MSD:

Within Criteria	Exceedance/Notes
NA	

Post digestion spikes:

Within Criteria	Exceedance/Notes
NA	



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Serial dilutions:

Within Criteria	Exceedance/Notes
NA	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
Y	

Field duplicates:

Within Criteria	Exceedance/Notes
N	<p>The results from the indoor air field duplicate pairs were practically identical. However sample 10319538003 yielded about 60 times the concentrations found in its primary sample. Due to this uncertainty in the true results at that location, the detected results for sample 10319538002 and its field duplicate were qualified as estimated and flagged “J”.</p>

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
N	<p>The first (of two) LCS yielded a recovery of 130 percent for vinyl chloride, just above the QC limits of 72 to 129 percent. (The second LCS yielded a recovery of 124 percent for that analyte.) Vinyl chloride was not detected in any of the field samples so no qualifications were applied.</p>

Sample dilutions:

Within Criteria	Exceedance/Notes
NA	



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Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

Second column confirmation (GC and HPLC analyses only):

Within Criteria	Exceedance/Notes
NA	

Internal Standards:

Within Criteria	Exceedance/Notes
Y	

Target analyte identification:

Within Criteria	Exceedance/Notes
Y	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	



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System performance and instrument stability:

Within Criteria	Exceedance/Notes
Y	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

